

## ABSTRACT OF THE DISCLOSURE

A high frequency sweep generator uses a DDS-PLL method for frequency sweep over wide frequency spans. A digital sweep generator produces a linear ramp signal using DDS techniques that is applied to a  
5 coarse tuning port of a high frequency tunable oscillator, such as a YIG tunable oscillator (YTO). A PLL has as inputs an accurate linear swept frequency sinusoid from a DDS and a linear swept frequency output signal from the YTO to produce an error correction signal that is applied to a fine tuning port of the high frequency tunable oscillator. The error correction  
10 signal compensates for any non-linearities introduced into the linear swept frequency output signal by the high frequency tunable oscillator.